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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/553,454	10/17/2005	Paul H. Merswolke	5842.0007	6982
24629 7590 02/12/2007 DARYL W SCHNURR MILLER THOMSON LLP ACCELERATOR BUILDING 295 HAGEY BLVD., SUITE 300 WATERLOO, ON N2L 6R5 CANADA			EXAMINER WHITE, DWAYNE J	
			ART UNIT 3745	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		02/12/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	Application No. 10/553,454	Applicant(s) MERSWOLKE ET AL.	
	Examiner Dwayne J. White	Art Unit 3745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>10/17/05</u> . | 6) <input type="checkbox"/> Other: _____  |

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***Information Disclosure Statement***

The information disclosure statement filed 17 October 2005 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered. No copies of the foreign patent documents cited have been supplied.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-9, 11, 12, 15 and 19-20 rejected under 35 U.S.C. 103(a) as being unpatentable over Schmidt (4,729,716) in view of Collard (FR 2394689 A). Schmidt discloses a wind turbine 10 for producing energy comprises a rotor 14 on a shaft 46, said rotor supporting a plurality of soft airfoils 32 and being rotatably mounted on said shaft, said blades each having a tip, there being a plurality of tips on said turbine, said tips being connected to support a ring 26 that extends around a circumference formed by said tips, said ring rotating with said blades, said ring having a front and rear surface with rubber wheels 88/90 mounted to removably contact said ring, each of said rotators being connected to generator 92/94, said wheels rotating with said ring when said ring rotates, thereby driving said energy producing equipment, said turbine being

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controlled by a controller 144. Schmidt also discloses that the controller monitors the wind using sensors 146 to control the yaw of the turbine, position of the blades and number of wheels in contact with the ring and the turbine is a variable speed turbine (Column 4, line 53-Column 5, line 2 and Column 6, lines 25-53). Brakes (Column 4, line 30) are provided to stop or slow the turbine. The number of blades range from 8 to 11 (figure 1) and the shaft is supported on a tower 22. Schmidt further discloses a wind turbine mounted on a turntable 16. In regards to the method claims 21 and 22, it is the position of the Examiner that since Schmidt discloses all of the structural features claimed by Applicant and said features are needed to perform the method steps claimed by Applicant, Schmidt anticipates the method claims. Schmidt does not disclose the wheels being in contact with the front and rear surfaces of the rim or projections and indentations on the rim corresponding to the indentations and projections on the wheels.

Collard teaches a similar wind turbine device having a plurality of wheels contacting the front and rear surfaces of the wind turbine rim. Collard also teaches the wheels being in contact on other surfaces of the rim and a plurality of corresponding projections and indentations on both the rim and the wheels. Since both Schmidt and Collard disclose wind turbines wherein a rim is used to transfer rotational energy to the wheels to operate generators and Collard teaches that the wheels can be mounted in various positions, it would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the wheels of Schmidt, with the teaches of Collard, by having wheels contacting the front and rear surfaces of the rim for purpose of connecting more generators to the wind turbine. Further, it would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the rim of Schmidt, with the teaches of Collard, by providing projections and indentations for the purpose of increases the

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frictional contact between the rim and the wheels to reduce slippage of the wheels on the rim surfaces.

Claims 1-3, 5-17 and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Collard in view of Cook (4,350,895). Collard discloses a wind turbine supported on a tower 3 for producing energy comprises a rotor on a shaft, said rotor supporting at least 11 airfoil shaped blades 4 (Figure 1) and being rotatably mounted on said shaft, said blades each having a tip, there being a plurality of tips on said turbine, said tips being connected to support a ring 5 that extends around a circumference formed by said tips, said ring rotating with said blades, said ring having a front and rear surface with metal wheels 6 mounted to removably contact said ring on said front and rear surfaces (See Figures 2 and 3, each of said rotators being connected to generators 8, said wheels rotating with said ring when said ring rotates, thereby driving said generator. The front and rear surfaces of the rim have a plurality of projections and indentations and corresponding projections and indentations on the wheels. Collard further discloses that the blades are constructed to allow for the longitudinal orientation of the blades can be adjusted to control the speed of rotation. Collard does not disclose a controller connected to monitor the wind condition to control the yaw of the turbine or the turbine being mounted on a turntable having a rail and guide for the wind turbine support wheels.

Cook teaches a wind turbine being controlled by a controller (column 8, line 55-column 9, line 3) to control the yaw of the turbine. Cook further discloses the wind turbine being mounted on a turntable 14 having wheels 41 that are guided by a rail 20. The Examiner notes that since the wind turbine is fixed to the shaft 11, the shaft essentially acts as both a guide and a

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retention means for the wheels on the rail and therefore claims 16 and 17 are met by Cook.

Since both Cook and Collard disclose similar wind turbines and it is well known in the wind turbine art to mount the wind turbine such that it will face the wind, it would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the wind turbine of Collard, with the teachings of Cook, by providing a controller and turntable for the purpose of allowing the wind turbine to rotate in such a way that it substantially faces the wind.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Collard in view of Cook as applied to claims 1-17 and 19-22 above, and further in view of Appel (4,606,697). Collard in view of Cook discloses all of the claimed subject matter except for the guides and retention means connected to the wheels beneath the rail to hold the wheels on the rail and prevent the wheels from running off the rails.

Appel teaches wind turbine mounted on a turntable wherein the guides and retention means 37 are connected to the wheels beneath the rail to hold the wheels on the rail and prevent the wheels from running off the rails (Figure 1, column 5, lines 33-41). Since both Collard, as modified by Cook, and Appel disclose wind turbines that are able to rotate with the direction of the wind, it would have been obvious at the time the invention was made to one of ordinary skill in the art to further modify Collard, with the teachings of Appel, by providing guide and retention means for the purpose of securing the turntable wheels to the rails.

## **CONCLUSION**

### ***Prior art***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Williams (5,592,816) discloses a hydroelectric power plant where the tires are mounted on the outer and front surfaces of the turbine rim.

Kimura (JP 02130270 A) discloses a wind turbine having braking systems mounted to interact with the outer rim of the turbine wheel.

Ulrich (GB 2067247 A) discloses a control device for a wind turbine using sensors to detect wind conditions to set the pitch of the turbine blades.

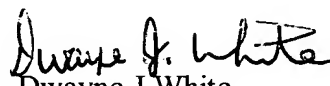
### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dwayne J. White whose telephone number is (571) 272-4825. The examiner can normally be reached on 7:00 am to 4 pm T-F and alternate Mondays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Look can be reached on (571) 272-4820. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read "Dwayne J. White".

Dwayne J White  
Patent Examiner  
Art Unit 3745

DJW